Amendment to the claims

This listing of claims replaces all prior versions and listing of claims in the application. Please cancel claims 1-15 without prejudice and add claims 16-27.

In the Claims:

~~1. (Original) Method for culturing cells in order to produce substances characterized in that, a cell producing substances is cultured under glucose limitation (DGL), wherein the DGL (DGL = qGlc/$qGlc_{max}$ where qGlc = observed current specific glucose consumption rate and $qGlc_{max}$ = maximum known specific glucose consumption rate for these cells) is larger than the DGL which only leads to the maintenance ($DGL_{maintenance}$) of the cell and is $\leq$ 0.5, wherein $DGL_{maintenance}$ = $qGlc_{maintenance}$/$qGlc_{max}$ where $qGlc_{maintenance}$ = the observed specific glucose consumption rate for pure maintenance metabolism and $qGlc_{max}$ = maximum known specific glucose consumption rate for these cells.~~

~~2. (Original) Method as claimed in claim 1, characterized in that the DGL is $\leq$ 0.4 or $\leq$ 0.3.~~

~~3. (Original) Method as claimed in claim 1 or 2, characterized in that the amount of fed glucose is not more than 50% of that which can be maximally consumed by the maximum expected cell count without glucose limitation.~~

~~4. (Original) Method as claimed in claim 3, characterized in that the amount of fed glucose is not more than 35% of that which can be maximally consumed by the maximum expected cell count without glucose limitation.~~

~~5. (Original) Method as claimed in one of the claims 1 to 4, characterized in that one component is used from the group of cell lines comprising CHO such as CHO-K1,~~

~~BHK such as BHK-21, hybridoma, myeloma cells such as NS/O, other mammalian cells and insect cells or other higher cells.~~

~~6. (Original) Method as claimed in one of the claims 1 to 5, characterized in that the produced substances are proteins or polypeptides.~~

~~7. (Original) Method as claimed in claim 6, characterized in that the produced substances are fusion proteins, MUC1-IgG2a, MUC2-GFP-C-term, EPO, interferons, cytokines, growth factors, hormones, PA, immunoglobulins, fragments of immunoglobulins or other glycoproteins.~~

~~8. (Original) Method as claimed in one of the claims 1 to 7, characterized in that a glucose-containing medium is used which is not limiting with regard to other nutrient components before glucose limitation occurs.~~

~~9. (Original) Method as claimed in claim 8, characterized in that the glucose is fed separately from other substrates.~~

~~10. (Original) Method as claimed in one of the claims 1 to 9, characterized in that it is carried out in a pH range of 6.7-7.7.~~

~~11. (Original) Method as claimed in one of the claims 1 to 10, characterized in that it is carried out in a temperature range in which irreversible destruction of the product does not occur.~~

~~12. (Original) Method as claimed in one of the claims 1 to 11, characterized in that it is operated in a continuous process with at least partial cell retention.~~

~~13. (Original) Method as claimed in one of the claims 1 to 12, characterized in that it is carried out in a fed-batch process.~~

~~14. (Original) Method as claimed in one of the claims 1 to 13, characterized in that it is started as a batch and continued as a fed-batch or continuous process.~~

~~15. (Original) Method as claimed in one of the claims 1 to 14, characterized in that it is carried out with cells whose production is not coupled to growth.~~

16. (New) A method for producing a substance comprising culturing cells that produce said substance in the presence of a nutrient media that results in a degree of glucose limitation (DGL), wherein the DGL is larger than the degree of glucose limitation needed for maintenance of the cell ($DGL_{maintenance}$) and the DGL ratio of the currently observed specific consumption rate to the maximum known specific consumption rate for said cells is ≤ 0.5.

17. (New) The method of claim 16, wherein the DGL is ≤ 0.4.

18. (New) The method of claim 16, wherein the DGL is ≤ 0.3.

19. (New) The method of claim 16, wherein the nutrient media comprises glucose and further wherein the amount of glucose is not more than 50% of that which can be maximally consumed by the maximum expected cell count without glucose limitation.

20. (New) The method of claim 19, wherein the amount of glucose is not more than 35% of that which can be maximally consumed by the maximum expected cell count without glucose limitation.

21. (New) The method of claim 16, wherein the cells are selected from the group of cell lines comprising CHO such as CHO-K1, BHK such as BHK-21, hybridoma, myeloma cells such as NS/O and other mammalian cells.

22. (New) The method of claim 16, wherein the produced substances are proteins or polypeptides.

23. (New) The method of claim 21, wherein the produced protein or polypeptide substances comprise fusion proteins, MUC1-IgG2a, MUC2-GFP-C-term, EPO, interferons, cytokines, growth factors, hormones, PA, immunoglobulins, fragments of immunoglobulins or other glycoproteins.

24. (New) The method of claim 19, characterized in that a glucose-containing medium is used which is not limiting with regard to other nutrient components before glucose limitation occurs.

25. (New) The method of claim 24, wherein the glucose is fed separately from other nutrient media.

26. (New) The method of claim 16, wherein the culture is carried out in a pH range of 6.7-7.7.

27. (New) The method of claim 16, wherein the cells are cultured under a fed-bath or perfusion process.